

<u>Figs.</u>	<u>Claim(s)</u>	<u>Directed to</u>
2, 4, 7, & 9	20, 40, & 44	System with improved mirror mount.
12, 13	41 & 42	Clock version with metallized mirror housing wall.
14, 15	43	Video version with metallized mirror housing wall.

**In the Claims:**

Cancel claims 1-19.

20. Apparatus in accordance with claim 40 wherein said resilient adhesive means is silicone cement.

21. Counter height apparatus for producing an aerial image of an object comprising:

a housing of substantially counter height having a top surface including a window therein;

support means within said housing for an object to be displayed as an aerial image outside of said window;

means for illuminating said object;

a partially silvered planar beamsplitter positioned in the optical path of light rays from said illuminated object;

a focusing reflector positioned within said housing directed at said window and located at approximately a 45 degree angle with respect to said partially silvered

beamsplitter;

whereby light rays from said object are partially reflected by said partially silvered beamsplitter toward said focusing reflector, and then reflected and focused by the focusing reflector directly through said partially silvered beamsplitter and through said window to produce an aerial image of said object outside of said housing;

means for preventing an observer who is viewing said aerial image from seeing reflected images from outside of said housing in said window;

wherein said housing being of substantially counter height and said window is in the top surface thereof, objects contained within said housing are displayed as an aerial image in the region of the top of the housing window at countertop height.

22. Apparatus in accordance with claim 21 wherein said housing includes a top side, a bottom side, a front side, a rear side and two lateral sides wherein

said window constitutes at least a portion of the top side of said housing;

said focusing reflector is secured to the inner region of said rear side;

said object to be displayed is located in the region of the inner surface of said bottom portion of said housing;

said illuminating means is located in said housing between said partially silvered beamsplitter outside of the optical path from said object and directed at said object; and

said polarizing filter means is located between said window and said partially silvered beamsplitter.

Cancel claims 23-26.

27. Apparatus in accordance with claim 21 wherein said focusing reflector is metallized molded plastic.

28. Apparatus in accordance with claim 21 wherein said housing being of substantially counter height and said window is in the top thereof and wherein said housing includes an internal portion extending between the actual location of the object to be displayed and the image displaying portion of said window to obscure viewing of the object through the window.

29. Apparatus in accordance with claim 21 wherein said partially silvered beamsplitter is positioned in said housing generally parallel to said window.

30. Apparatus in accordance with claim 21 wherein the apparatus produces the aerial image at or about said window and said window constitutes an apparent support for the aerial image.

31. Apparatus for producing an aerial image of an object comprising:

- a housing including a window therein;
- support means for an object to be displayed as an aerial image outside of said window;
- means for illuminating the object to be displayed;
- video camera means within said housing directed toward the object to be displayed;
- video display means within said housing coupled to said video for producing in said housing an image of the object;
- a beamsplitter in said housing positioned at approximately 45 degrees with respect to said video display of the object;
- said beamsplitter also positioned at approximately 45 degrees with respect to said window of said housing;
- a focusing reflector in said housing directed at said beamsplitter for receiving a partially reflected image of said object from said video display and for reflecting the image of the object out of said window to form an aerial image of the object outside of said housing.

32. Apparatus in accordance with claim 31 wherein said video camera and illuminating means and the object are located in a light sealed enclosure within said housing.

33. Apparatus in accordance with Claim 31 including support means outside of said housing including a platform located in the region of the aerial display of the object whereby the aerial image of the object displayed appears to rest on said platform.

Cancel claims 34-36.

37. Apparatus for producing an aerial image of an object comprising:

- a housing including a window therein;
- support means within said housing for an object to be displayed as an aerial image outside of said window;
- means for illuminating said object;
- partially silvered planar beamsplitter positioned in the optical path of light rays from said illuminated object;
- said partially silvered beamsplitter also positioned at approximately a 45-degree angle with respect to said window;
- focusing reflector positioned within said housing directed at said window and located at approximately a 45 degree angle with respect to said partially silvered beamsplitter;
- whereby light rays from said object are partially reflected by said partially silvered beamsplitter toward said focusing reflector directly through said partially silvered beamsplitter and through said window to produce an aerial image of said object outside of said housing;
- means located between said partially silvered beamsplitter and said

window for preventing an observer who is viewing said aerial image from seeing reflected images from outside of said housing in said window; and

including an additional focusing reflector adjacent to the inner surface of said top wall and directed at approximately a 45° angle toward said partially silvered planar beamsplitter whereby an enhanced brightness aerial image is produced from the reflection of both of said focusing reflectors.

38. Apparatus in accordance with claim 37 wherein said focusing reflectors are metallized molded plastic.

Cancel claim 39.

40. Apparatus for producing an aerial image of an object comprising:

- a housing including a window therein;
- support means within said housing for an object to be displayed as an aerial image outside of said window;
- means for illuminating said object;
- partially silvered planar mirror positioned in the optical path of light rays from said illuminated object;
- said partially silvered mirror also positioned at approximately a 45-degree angle with respect to said window;
- focusing reflector positioned within said housing directed at said window and located at approximately a 45 degree angle with respect to said partially silvered

mirror;

whereby light rays from said object are partially reflected by said partially silvered mirror toward said focusing reflector directly through said partially silvered mirror and through said window to produce an aerial image of said object outside of said housing;

means located between said partially silvered mirror and said window for preventing an observer who is viewing said aerial image from seeing reflected images from outside of said housing in said window;

wherein said reflecting means comprises a partial spherical concave mirror having a rear surface for support and a front reflective surface; and

including a mirror support secured in said housing;

said mirror support comprising a planar member having a circular aperture therein having a diameter less than said concave mirror; and

resilient adhesive means adhering to the rear support surface of said concave mirror to said mirror rear support surface as a bead in contact between the rear side of said concave mirror and the edge of said circular aperture.

41. Apparatus for producing an aerial image of an object comprising:

- a housing including a window therein;
- support means with said housing for an object to be displayed as an aerial image outside of said window;
- means for illuminating said object;
- partially silvered planar mirror positioned in the optical path of light rays from said illuminated object;
- said partially silvered mirror also positioned at approximately a 45-degree angle with respect to said window;
- focusing reflector positioned within said housing directed at said window and located at approximately a 45 degree angle with respect to said partially silvered mirror;
- whereby light rays from said object are partially reflected by said partially silvered mirror toward said focusing reflector directly through said partially silvered mirror and through said window to produce an aerial image of said object outside of said housing; and
- means located between said partially silvered mirror and said window for preventing an observer who is viewing said aerial image from seeing reflected images from outside of said housing in said window; and
- wherein said housing is a clock enclosure and a clock including a display of time;
- wherein said display of time constitutes the image source;



and wherein said focusing reflector comprises a metallized concave region of the interior of the wall of said housing opposite said window.

42. Apparatus for producing an aerial image of an object comprising:
- a housing including a window therein;
  - support means with said housing for an object to be displayed as an aerial image outside of said window;
  - means for illuminating said object;
  - partially silvered planar mirror positioned in the optical path of light rays from said illuminated object;
  - said partially silvered mirror also positioned at approximately a 45-degree angle with respect to said window;
  - focusing reflector positioned within said housing directed at said window and located at approximately a 45-degree angle with respect to said partially silvered mirror;
  - whereby light rays from said object are partially reflected by said partially silvered mirror toward said focusing reflector directly through said partially silvered mirror and through said window to produce an aerial image of said object outside of said housing; and
  - means located between said partially silvered mirror and said window for preventing an observer who is viewing said aerial image from seeing reflected images from outside of said housing in said window; and
  - wherein said focusing reflector comprises a metallized concave

region of the interior of the wall of said housing opposite said window.

43. Apparatus for producing an aerial image of an object comprising:
- a housing including a window therein;
  - support means with said housing for an object to be displayed as an aerial image outside of said window;
  - means for illuminating said object;
  - partially silvered planar mirror positioned in the optical path of light rays from said illuminated object;
  - said partially silvered mirror also positioned at approximately a 45-degree angle with respect to said window;
  - focusing reflector positioned within said housing directed at said window and located at approximately a 45-degree angle with respect to said partially silvered mirror;
  - whereby light rays from said object are partially reflected by said partially silvered mirror toward said focusing reflector directly through said partially silvered mirror and through said window to produce an aerial image of said object outside of said housing; and
  - means located between said partially silvered mirror and said window for preventing an observer who is viewing said aerial image from seeing reflected images from outside of said housing in said window; and
  - wherein said housing is a video enclosure and a video display;
  - wherein said video display constitutes the image source; and

wherein said focusing reflector comprises a metallized concave region of the interior of the wall of said housing opposite said window.

44. An aerial-image display in accordance with claim 40 wherein said resilient adhesive means comprises a pair of bead on one each side of the areas of contact between the rear face of the said mirror and said mirror support.